Date: **September, 2004**

Guidelines For Estimating

Backgrounding Costs

For Weight Range of 500 - 900 lbs

Based on 500 Head

Livestock values in this document may be subject to change as the market responds to the BSE situation. Howerver, it is important to base your decisions not only on market information, but also on the cost of production for your particular operation.

The following is an estimate of the costs of production associated with backgrounding feeder calves. The purpose of this budget is to assist Manitoba livestock producers to calculate their own costs and take into consideration the factors that should be included when budgeting to determine breakeven prices.

Backgrounding generally refers to the assembling, feeding and managing of calves from weaning until they are put onto a high concentrate finishing ration. In general calves fed from weaning to 800-900 pounds are referred to as background feeders. An example of a typical backgrounding operation would be, feed 500 pound steers to gain 1.75-2.75 pounds per day for approximately 100-200 days to produce 800-900 pound backgrounded feeders.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba cattle industry. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI Farm Management Specialist or Livestock Specialist.

Backgrounding Cattle Production Cost Summary, September, 2004

A. Operating Costs	Cost/Head	Total Cost	Your Cost
1. Feed Costs			
1.01 Ground Barley	$44.42	$22,208	
1.02 Barley Silage	$62.56	$31,280	
1.03 Hay	$1.88	$938	
1.04 Supplement	$15.75	$7,873	
Total Feed Costs	**$124.60**	**$62,299**	
2. Other Operating Costs			
2.01 Feeder Cost	$461.25	$230,625	
2.02 Straw	$5.76	$2,880	
2.03 Veterinary Medicine & Supplies	$17.59	$8,795	
2.04 Annual Fuel & Repair Costs	$4.95	$2,475	
2.05 Utilities	$3.80	$1,900	
2.06 Feeder Selling Cost	$29.00	$14,500	
2.07 Insurance	$4.36	$2,180	
2.08 Manure Removal	$6.40	$3,200	
2.09 Barn & Office Supplies	$0.40	$200	
2.10 Death Loss	$10.90	$5,452	
Subtotal Operating Costs	$669.01	$334,506	
2.11 Operating Interest	$14.86	$7,432	
Total Operating Costs	**$683.87**	**$341,938**	
B. Fixed Costs			
3. Depreciation			
3.01 Buildings	$5.29	$2,645	
3.02 Machinery & Equipment	$12.00	$6,000	
4. Investment			
4.01 Buildings	$1.94	$970	
4.02 Machinery & Equipment	$2.70	$1,350	
Total Fixed Costs	**$21.93**	**$10,965**	
Total Operating and Fixed Costs	**$705.80**	**$352,903**	
C. Labour	$20.00	$10,000	
Total Cost of Production	**$725.80**	**$362,903**	
Cost per lb of gain sold	**$/cwt**		
Feed Costs	$36.01		
Operating Costs	$67.59		
Operating & Fixed Costs	$73.93		
Total Costs	$79.71		
Breakeven Selling Price			
Operating Costs	$80.84		
Operating & Fixed Costs	$83.43		
Total Costs	$85.79		
Breakeven Purchase Price (based on $80/cwt market price)			
Operating Costs	$88.59		
Operating & Fixed Costs	$84.20		
Total Costs	$80.20		

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Assumptions

1. Average daily gain (ADG) was assumed to be 2.5 lbs/day.
2. It was assumed the feeder steer weighed in at 500 lbs. shrunk weight, and was raised to 900 lbs (846 lbs after 6 % shrink).
3. Days on feed was 160.
4. Investment in facilities and equipment was assumed to handle 500 head.

Backgrounding Cattle Production Cost Worksheet

A. Operating Costs			Your Cost
1. Feed Costs			
1.01 Ground Barley			
	160.00	days on ground barley	
x	6.50	lbs/feeder/day	
÷	48.00	lbs/bu	
x	$2.05	/bu	
=	**$44.42**	**/feeder**	
1.02 Barley Silage			
	160.00	days on silage	
x	34.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$23.00	/ton	
=	**$62.56**	**/feeder**	
1.03 Hay			
	15.00	days on hay	
x	5.00	lbs/feeder/day	
÷	2000.00	lbs/ton	
x	$50.00	/ton	
=	**$1.88**	**/feeder**	
1.04 Supplement(Salt,Minerals,Vitamins, Ionophore)			
	160.00	days on supplement	
x	0.25	lbs/feeder/day	
÷	2205.00	lbs/tonne	
x	$868.00	/tonne	
=	**$15.75**	**/feeder**	

2. Other Operating Costs

2.01 Feeder Cattle Cost

Commission	$5.00	/feeder	_____
Trucking-in	$1.25	/cwt	_____
x	500	lbs/feeder	_____
÷	100	lbs/cwt	_____
=	$6.25	/feeder	_____
Feeder	500	lbs/feeder	_____
x	$90.00	/cwt	_____
÷	100	lbs/cwt	_____
=	$450.00	/feeder	_____
Total =	**$461.25**	**/feeder**	_____

2.02 Straw

	4.00	lbs/feeder/day	_____
x	160.00	days on feed	_____
x	$18.00	/ton	_____
=	**$5.76**	**/feeder**	_____

2.03 Veterinary Medicine & Supplies

Cattle Medication

	$2.50	IBR,BVD,PI3,BRSV,Pastearella	_____
+	$0.64	Vitamin A-D	_____
+	$3.00	External & Internal Parasites	_____
+	$2.50	Blackleg & Haemophilus	_____
+	$1.61	Growth Implants	_____
+	$4.00	Antibiotics	_____
=	$14.25	/feeder	_____

Herd Health Program

Professional Services

	$135.00	/hour charge	_____
x	10.00	hours	_____
÷	500.00	feeder cattle	_____
=	$2.70	/feeder	_____

Transportation Costs

	$1.00	/km charge	_____
x	80	kilometres	_____
x	4	visits	_____
÷	500	feeder cattle	_____
=	$0.64	/feeder	_____

Total =	**$17.59**	**/feeder**	

2.04 Annual Fuel & Repair Costs

	$875.00	repairs	
+	$1,600.00	fuel costs	
÷	500	feeder cattle	
=	**$4.95**	**/feeder**	

2.05 Utilities

	$1,900.00	cost/year	
÷	500	feeder cattle	
=	**$3.80**	**/feeder**	

2.06 Feeder Selling Cost

Trucking

	900	lbs/feeder	
÷	100	lbs/cwt	
x	$1.25	trucking cost/cwt	
=	$11.25	/feeder	

Selling Commission

	$17.00	commission (& MCPA checkoff)	
±	$0.75	insurance	
=	$17.75	/feeder	

Total =	**$29.00**	**/feeder**	

2.07 Insurance

	$133,790	building & equipment investment	
x	$0.50	/$100 capital	
÷	100	/$100	
±	500	feeder cattle	
=	$1.34	/feeder	
	$292,500	herd investment	
x	$0.50	/$100 capital	
÷	100	/$100	
±	500	feeder cattle	
=	$2.93	/feeder	
	$45.00	additional coverage for liability	
±	500	feeder cattle	
=	$0.09	/feeder	

Total =	**$4.36**	**/feeder**	_____

2.08 Manure Removal

	$3,200	annual removal cost	_____
÷	500	feeder cattle	_____
=	**$6.40**	**/feeder**	_____

2.09 Barn & Office Supplies

	$200.00	total barn expenses	_____
÷	500	feeder cattle	_____
=	**$0.40**	**/feeder**	_____

2.10 Death Loss

	$461.25	feeder cattle cost	_____
+	$658.11	maximum value	_____
-	$29.00	selling costs	_____
÷	2.00	average	_____
x	2.00	% mortality rate	_____
=	**$10.90**	**/feeder**	_____

2.11 Operating Interest

(Operating interest is charged on one half the subtotal operating costs)

	$461.25	feeder cost	_____
+	$103.88	½ of feed & other costs	_____
x	6.00	% operating interest	_____
x	160.00	days on feed	_____
÷	365.00	days /year	_____
=	**$14.86**	**/feeder**	_____

Capital Costs

Buildings,Corrals & Water System		
Windbreak fence	$4,200	
Pens	$3,542	
Handling Facilities	$4,000	
Waterers	$4,000	
Gates	$1,280	
Feeders	$1,500	
Bunk Feeders	$18,768	
Well & Pressure System	$3,500	
Grain Bin	$3,000	
Landscaping	$15,000	
Total	**$58,790**	
Machinery & Equipment		
Tractor & Loader	$50,000	
Miscellaneous	$25,000	
Total	**$75,000**	
Total Investment	**$133,790**	

B. Fixed Costs

3. Depreciation $\frac{\text{Original Cost - Salvage Value}}{\text{Useful Life}}$

3.01 Buildings

	$58,790	original cost	
-	$5,879	salvage value	
÷	20.00	years useful life	
÷	500.00	feeder cattle	
=	**$5.29**	**/feeder**	

3.02 Machinery & Equipment

	$75,000	original cost	
-	$15,000	salvage value	
÷	10.00	years useful life	
÷	500.00	feeder cattle	
=	**$12.00**	**/feeder**	

4. Investment $\frac{\text{Original Cost + Salvage Value}}{2}$ **x Investment Rate**

4.01 Buildings

	$58,790	original cost	_____
+	$5,879	salvage value	_____
÷	2.00	average	_____
x	3.00	% investment rate	_____
÷	500.00	feeder cattle	_____
=	**$1.94**	**/feeder**	_____

4.02 Machinery & Equipment

	$75,000	original cost	_____
+	$15,000	salvage value	_____
÷	2.00	average	_____
x	3.00	% investment rate	_____
÷	500.00	feeder cattle	_____
=	**$2.70**	**/feeder**	_____

C. Labour

	2.0	hours/feeder/year	_____
÷	$10.00	/hour	_____
=	**$20.00**	**/feeder**	_____

Breakeven Calculations

Cost per lb of gain sold (shrunk weight)				
Feed Costs		$124.60	feed cost	
	÷	346.00	lbs gained weight	
	=	**$0.36**	**/lb (gain sold)**	
Operating Costs		$683.87	operating costs	
	-	$450.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.68**	**/lb (gain sold)**	
Operating & Fixed		$705.80	operating & fixed costs	
	-	$450.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.74**	**/lb (gain sold)**	
Total Costs		$725.80	operating & fixed costs	
	-	$450.00	feeder cost	
	÷	346.00	lbs gained weight	
	=	**$0.80**	**/lb (gain sold)**	
Breakeven selling price (shrunk weight)				
Operating Costs		$683.87	operating costs	
	÷	846.00	lbs shrunk weight	
	=	**$0.81**	**/lb**	
Operating & Fixed		$705.80	operating costs	
	÷	846.00	lbs shrunk weight	
	=	**$0.83**	**/lb**	
Total Costs		$725.80	operating costs	
	÷	846.00	lbs shrunk weight	
	=	**$0.86**	**/lb**	
Breakeven purchase price (shrunk weight)				
Operating Costs		846.00	lbs shrunk weight	
	x	$80.00	$/cwt selling price	
	=	$676.80	income	
	-	$233.87	operating less feeder cost	
	±	500.00	lbs purchase weight	
	=	**$0.89**	**/lb**	

Operating & Fixed		846.00	lbs shrunk weight	
	x	$80.00	$/cwt selling price	
	=	$676.80	income	
	-	$255.80	op. & fixed less feeder cost	
	÷	500.00	lbs purchase weight	
	=	**$0.84**	**/lb**	
Total Costs		846.00	lbs shrunk weight	
	x	$80.00	$/cwt selling price	
	=	$676.80	income	
	-	$275.80	total less feeder cost	
	÷	500.00	lbs purchase weight	
	=	**$0.80**	**/lb**	

For more information contact your local MAFRI Office.

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Backgrounding Feedlot Facilities